SECTION 13701
VIDEO SURVEILLANCE SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Requirements of Drawings, General and Supplementary Conditions and Division 1 apply to this section.

1.2 SUMMARY

A. Provide a completely functional and fully operational closed circuit television system with cross-point matrix switching.

1.3 UNIT PRICING

A. Provide the Government with a per camera cost for each location indicated on the plans as future. Government may at their option install future cameras based on available budget.

B. Additional per camera cost shall be valid to the Government for a period of 18 months.

1.4 SUBMITTALS

A. Shop drawings:
   1. System block and wiring diagrams.
   2. Description of system operation.

B. Product data:
   1. Technical data on all equipment and devices used.

C. Comply with requirements of Section 13700, 1.6.

1.5 QUALITY ASSURANCE

A. System standards:
   1. NFPA 70, National Electrical Code.

B. Comply with requirements of Section 13700, 1.9.

1.6 WARRANTY

A. Comply with requirements of Section 01740.

1.7 OPERATING AND MAINTENANCE DATA

A. Comply with requirements of Section 13700, 1.8

1.8 EXTRA MATERIALS

A. Provide the following spare parts.
   1. Connectors: 1 of each type installed.
   2. Fuses: 5 spare fuses for each type installed.

PART 2 - PRODUCTS

2.1 GENERAL

A. Acceptable manufacturers:
   1. Video surveillance equipment:

a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
b. Vicon
c. Javelin
d. Panasonic
e. Sony
f. Sanyo
g. Toshiba
h. Elmo
i. Elbex
j. Ultrak.

2. Camera, corner mount:
   a. Elbex (design basis), Elbex America, Blauvelt, NY (914-353-0600).
3. Camera dome:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
4. Lens:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
   b. Cohn
   c. Cosmicar
   d. Rainbow
   e. Vicon
   f. Elmo.
5. Housings:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
   b. Phillips,
   c. Pelco
   d. Vicon.
6. Positioning devices:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
   b. Pelco
   c. Vicon
   d. Videoalarm.
7. Mounts:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
   b. EMI
   c. Javelin
   d. Pelco.
8. Microprocessor based video switcher/control system:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
   b. American Dynamics
   c. Ultrak
   d. Javelin
   e. Vicon
   f. Pelco.
9. Video recorders:
   a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
   b. Javelin
   c. Sony
   d. Mitsubishi
   e. Sanyo.
10. Monitors:
    a. Panasonic (design basis), Secaucus, NJ, (201-348-7303).
    b. Sony
    c. Elmo
    d. Hitachi
    e. Vicon
    f. Pelco

g. Toshiba.

11. Wire and cable:
    a. Belden.
    b. West Penn.
12. Other manufacturers desiring approval comply with Section 00440.
13. All equipment must be compatible with color CCTV system.

B. System operation:
1. Provide complete system for viewing of remote scene including control of equipment accessories from three control points.

2.2 CAMERAS AND ACCESSORIES

A. Corner Mount Camera Type A: Solid-state vandal proof, all weather, color ball camera with incorporated surface mount.
1. CCD image sensor: 1/2 IN image format.
2. Active picture elements: 752H x 582V.
3. Horizontal resolution: 460 TVL.
4. Signal to noise: 52 dB minimum
5. Supply voltage/power: 24 VAC, 60 Hz.
6. UL listed.
7. Full video scene illumination requirement no more than 0.5-Lux
8. Automatic digital backlight compensation
9. Infra-red suppression: Built-in optical quartz LPF filter
10. Built-in auto iris lenses 4.5mm, F2.6
11. Linelock: PLL circuit to phase lock the camera sync to the 50Hz/60Hz @ 12-24V AC.
12. Operating temperature range -10 deg C to 50deg C.
13. White balance, automatic sensing continuous through lens
14. Provide power supplies as required.
15. Elbex EXC9/6-L with EMB9-C housing.

B. Dome Camera Type B: Solid state color type using large scale integration technology incorporating digital signal processing technology for uniformly sharp pictures over entire screen and no geometric distortion. Housed in specified housing.
1. CCD image sensor: 1/3 IN image format, Panasonic WV-CS404
2. Active picture elements: 768H x 492V.
3. Horizontal resolution: 480 TVL.
4. Signal to noise: 50 dB minimum.
5. Supply voltage/power: 24 VAC.
6. UL listed, CSA certified.
7. Full video scene illumination requirement no more than 0.4 foot candles.
8. Backlight compensation.
9. Lens mount standard CS.
10. Auto iris connection.
11. Sync input.
12. Operating temperature range -20 degC to 55 degC.
13. White balance, automatic sensing continuous through lens.
14. Line lock: Synchronize camera to power line zero crossing for roll free vertical interval switching. Vertical phase delay to be externally adjustable to allow vertical synchronization on multiphase power installation.
15. Provide power supplies as required.

2.3 LENS

A. Provide auto iris type lens: Lens focal length to be selected to provide viewing of scene indicated in schedule. Provide lens required to give the Government field of view required.
1. Where zoom lens is indicated provide 6X magnification.

2.4 MICROPROCESSOR BASED VIDEO SWITCHER/CONTROL SYSTEM

A. Provide fully programmable microprocessor based full matrix switching and control system for control of complete video surveillance system as indicated. Any camera able to be viewed on any monitor. Manufacturer: Panasonic WJ-SX350.
   1. Inputs: Minimum 32.
   2. Outputs: Minimum 8.
   3. Dwell time: Adjustable from 3 to 60 seconds.
   4. Camera identification: 48 character on screen display including time/date, camera information, sequence conditions, and alarm status.
   5. Keyboard controls:
      a. Camera selection.
      b. Dwell time.
      c. Control of motion drive units.
      d. Control of zoom lens.
   6. Built-in battery backup for power loss protection.
   7. Supply voltage: 120 VAC, 60 Hz.
   8. Mounting: 19 IN rack.
   9. Disk containing software for user programming of system.
   10. Signal distribution unit for control of drive units.
   11. Alarm interface units.
   12. Video output modules. Provide a minimum of 6 output points (monitors).
   13. Video input modules. Provide a minimum of 9 input points (cameras).
   14. Programming for up to 256 sequences with salvo switching.
   15. RS-232 input/output for integration to touchscreen control system.
   16. Three alarm response modes: Basic, auto build, sequence and display.
      a. 16 character alarm title selected while camera is in alarm.
      b. Alarms to be capable of reset either automatically or manually.
   17. System operation and programming accomplished through keyboard.

2.5 VIDEO RECORDERS

A. Provide color video recorder for creating video tapes of events.
   1. Format: 1/2 IN video cassette.
   2. Rotary heads: 2 helical scan.
   3. Color: Converted subcarrier, direct recording.
   4. Speeds: SP and EP modes.
   5. Tape: (T-120) NTSC.
   6. High speed video scan: 5 x 2 hour.
   7. Rewind/fast forward time: 60 seconds for T120.
   8. Video:
      a. Input: 1.0 V p/p, 75 ohms, unbalanced.
      b. Output: 1.0 V p/p, 75 ohms, unbalanced.
      c. Horizontal resolution: Monochrome up to 350 lines, color 240 lines.
      d. Signal to noise: Better than 40 dB.
   9. Audio:
      a. Input: -7.8 dBm, 50 kilo ohm.
      b. Output: -10 dBm, 600 ohm, unbalanced.
      c. Response: Plus/minus 3 dBm, 100 Hz to 8 KHz (2 HR speed).
   10. Data generator:
      a. Time/memory power loss back-up: 24 HR minimum.
      b. On screen display selection: Date, time power loss.
   11. Supply voltage: 120 VAC, 60 Hz AC power cord.
   12. Panasonic AG1330.

2.6 VIDEO MONITORS

A. Provide solid state type color video monitors as indicated on drawings.
   1. Controls:
      a. Brightness, contrast, V-hold, H-hold, on/off.
      b. Video termination, DC restoration, video, service.
   2. Mounting: See architectural plans for CCTV monitor locations and coordinate integration into counter-tops and cable routing within millwork.
   3. Supply voltage: 120 VAC, 60 Hz., AC power cord.

B. Monitors: 13 IN.
   1. Resolution: 370 lines.
   2. Input impedance: Switchable, looping.
   3. Video input: 1.0 V composite P/P.
   4. Sweep linearity: 5 percent or better.
   5. Sweep geometry: 2 percent or better.
   6. Amplifier bandwidth: Minimum 10 MHz.
   7. Maximum video gain: 39 dB.
   8. Operating temperature: 32 to 104 degF.
   9. Panasonic VW-CK1420.

2.7 SIGNAL CONDITIONING EQUIPMENT

A. Provide signal conditioning equipment as an integral part of video surveillance system where required to meet performance requirements.
   1. All equipment rack mounted.
   2. Equalizers: Each camera to compensate for degraded signal.
   3. Hum clampers: Each camera to provide hum-free video signal for monitor display.
   4. Video amplifiers: Each camera for signal required at each monitor.

2.8 VIDEO WIRING SYSTEMS

A. Video signal cable: Coaxial type, RG-59U.
   1. Temperature range: -30 to +75 degC.
   2. AWG: 20 GA solid copper.
   3. Nominal impedance: 75 ohms.
   4. Nominal capacitance: 17.3 picofarads per FT.
   5. Dielectric strength: 5000V RMS, 60 Hz.
   6. Nominal attenuation: 2.7 dB/100 FT at 200 MHz.
   7. Shield: Bare and copper braid, 95 percent coverage.
   8. Belden 1426A.

B. Power cable for 24 VAC distribution to cameras:
   1. Twisted pair.
   2. Size as required for power requirement and distance incurred. Minimum 14 GA.

C. Control cable for lens:
   1. Multiple conductor, 100 percent shield.
   2. Size as required for power requirement and distance incurred. Minimum 22 GA.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install all equipment in accordance with manufacturer's recommendations.

B. Install all video surveillance system cabling in conduit.

C. Make all connections to video equipment with approved connectors for cable used.

D. Comply with requirements of section 13700, 3.3.

3.2 TESTING

A. Test all system components and connections using methods as recommended by manufacturer.

B. Test the entire infrastructure cabling system and separately test the coaxial cable transmission media for the acceptance of each individual system and the complete video surveillance system. Insure that the cable and equipment being installed in the system is without flaw and that no damage to the cable or equipment occurred in shipment or handling. Replace any defective cables or equipment prior to time of installation and in such a time frame that it does not affect the project scheduling and at the Contractor's expense. Government shall be allowed to observe the testing of the installed cabling and terminations at will.

1. Coaxial cable testing:
   a. Perform quality tests on all coaxial cable to be reused in addition to the final acceptance test. Pre-installation testing shall be performed if the materials inspection uncovers damage. A qualified technician, provided by the contractor shall perform Time Domain Reflectometry (TDR) tests on all cable to be reused. Perform TDR tests on any cable that may have been damaged during installation. A testing log and printed record shall be maintained on reused cable. The printed data shall be bound and presented to the Government upon completion of acceptance testing.
2. Perform in-progress tests for serviceability during connector installation and prior to connection to equipment to determine if any faults have developed during the cable installation. Perform continuity tests on all cable after installation but before splices are sealed and equipment cases closed. Use a device such as the TENMA 72-6241 Coaxial Cable Tester or equal, to perform continuity tests.
3. Perform final acceptance tests to determine the acceptability and performance of the system.
4. TDR testing equipment shall be as supplied by Hewlett-Packard, Systron Donner, TekTronix or approved equal.

C. Comply with requirements of Section 13700, 3.4.

3.3 WIRING

A. Provide 120 volt power as required for all equipment and accessories.

3.4 GOVERNMENT'S TRAINING

A. Comply with requirements of Section 13700, 3.6.

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS
(Heading Row)																				
101	EY1-1	X									X							12' AFG	2/EY5-1	
102	EY1-1					X	X												1/EY5-1	
103	EY1-1					X	X												1/EY5-1	
104	EY1-1					X	X												1/EY5-1	
105	EY1-1					X	X												1/EY5-1	
106	EY1-1					X	X												1/EY5-1	
107	EY1-1					X	X												1/EY5-1	
108	EY1-1					X	X												1/EY5-1	
109	EY1-1					X	X												1/EY5-1	
F-101	EY1-1	X									X							12' AFG	2/EY5-1	
F-102	EY1-1					X	X												1/EY5-1	
F-103	EY1-1					X	X												1/EY5-1	
F-104	EY1-1					X	X												1/EY5-1	
F-105	EY1-1		X											X					3/EY5-1	
F-106	EY1-1					X	X												1/EY5-1	
F-107	EY1-1					X	X												1/EY5-1	
F-108	EY1-1		X											X					3/EY5-1	
F-109	EY1-1					X	X												1/EY5-1	
F-110	EY1-1					X	X												1/EY5-1	
F-111	EY1-1		X											X					3/EY5-1	
F-112	EY1-1		X											X					3/EY5-1	
F-113	EY1-1		X											X					3/EY5-1	
F-114	EY1-1	X									X							12' AFG	2/EY5-1	Equipped with pan/tilt zoom capabilities
F-115	EY1-1	X									X							12' AFG	2/EY5-1	Equipped with pan/tilt zoom capabilities

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	**SHEET NUMBER**	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	**HEIGHT**	**DETAIL & SHEET**	**REMARKS**
F-116	EY1-1	**X**									**X**							12' AFG	2/EY5-1	Equipped with pan/tilt zoom capabilities
F-117	EY1-1		**X**											**X**					3/EY5-1	
F-118	EY1-1		**X**											**X**					3/EY5-1	
F-119	EY1-1	**X**													**X**				4/EY5-1	Pendant Mounted
F-120	EY1-1	**X**													**X**				4/EY5-1	Pendant Mounted

END OF SECTION

General Stuff:

To print out the Camera Schedule Data Grid, select File/ Print from the menu bar, then click on the button for Pages: From, then type From 1 To 1.

Type in the number or letter in Column C of the data grid for each camera used. The order doesn't matter, and spaces don't matter. Add new descriptions on the blank lines at the bottom of the grid.

Camera Schedule Instruction File

Instructions:
Col C: Type in number for camera
Col T: Type in Detail Sheet info
Add new camera descriptions to bottom of list. Add rows if necessary.
Add a Heading Row:
1. Highlight cells in Col B thru Col U in a Heading Row
2. Highlight the cell in Col B of the new Heading Row
3. Paste
Add new row:
1. Right click in row
2. Select Insert/Entire Row from the menu
3. Highlight cells in Col B thru Col U in row above NEW row
4. Highlight cells in Col B thru Col U
5. Right click on marker on lower right corner.
6. Drag down one row, then select Copy Cells to replicate formulas in the new row
Delete row:
1. Right click in row
2. Click on Delete/Entire row from the Menu .
Delete Information from Table:
Right click on cell or range, select Clear Contents

Data Grid for CCVE Cameras For Help click on the HELP! Tab at the bottom of the sheet!

	HOUSING TYPE								MOUNTING TYPE									
Type detail number for **CType**	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Sem-Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	**HEIGHT**	Type in detail sheet number **DETAIL & SHEET**
	X								X								12' AFG	
	X									X							12' AFG	
	X															X		
		X										X					12' AFG	
		X											X					
		X												X				
			X										X					
			X											X				
			X		X								X					
			X		X									X				
						X												
					X	X												
							X		X								12' AFG	
							X			X							12' AFG	
							X					X					12' AFG	
								X				X						
								X								X		
	X										X							
							X				X							
				X									X					

Camera Schedule - When you set the print area include this row!

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS
(Heading Row)																				

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	SHEET NUMBER	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	HEIGHT	DETAIL & SHEET	REMARKS

		HOUSING TYPE								MOUNTING TYPE										
CAMERA NUMBER	**SHEET NUMBER**	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Wedge 360 Adj*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	**HEIGHT**	**DETAIL & SHEET**	**REMARKS**

Data Grid for CCVE Cameras

	HOUSING TYPE							MOUNTING TYPE									
Type detail number for **CType**	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	**HEIGHT**	Type in detail sheet number **DETAIL SHEET**
	X							X								12' AFG	
	X								X							12' AFG	
	X														X		
		X									X					12' AFG	
		X										X					
		X											X				
			X									X					
			X										X				
			X	X								X					
			X	X									X				
					X												
				X	X												
						X		X								12' AFG	
						X			X							12' AFG	
						X					X					12' AFG	
							X				X						
							X								X		
1	X									X							
2						X				X							

Camera Schedule - When you set the print area include this row!

			HOUSING TYPE							MOUNTING TYPE									
CType	**CAMERA NUMBER**	**SHEET NUMBER**	*Enviro. Mini-Dome*	*Interior Mini-Dome*	*Wedge*	*Institution Rated*	*Corner*	*Standard*	*None*	*Exterior Pole*	*Exterior Wall*	*Parapet Mount*	*Interior Wall*	*Ceiling Flush*	*Ceiling Surface*	*Ceiling Recessed*	*Concealed*	**HEIGHT**	**DETAIL/ SHEET**
	(Heading Row)																		
1			X									X							
2								X				X							
1			X									X							
2								X				X							

Instructions:

Col C: Type in number for camera
Col T: Type in Detail Sheet info
Add new camera descriptions to bottom of list. Add rows if necessary.

Format Heading Row:

1. Type information
2. Highlight cells in Col B thru Col U
4. Choose no lines from Borders format button.
3. Choose outline box from Borders format button

Add new row:

1. Right click in row
2. Select Insert/Entire Row from the menu
3. Highlight cells in Col B thru Col U in row above NEW row
4. Highlight cells in Col B thru Col U
5. Right click on marker on lower right corner.
6. Drag down one row, then select Copy Cells to replicate formulas in the new row

Delete row:

1. Right click in row
2. Click on Delete/Entire row from the Menu .

Delete Information from Table:

Right click on cell or range, select Clear Contents

Select Print Area:

Begin in Col B with the cell containing **"Camera…**" and highlight across to Col U, then down to the end of the data. Select File/Print Area/Set Print Area from menu bar

REMARKS